A FOLLOW-UP STUDY OF STUDENTS FOUR YEARS AFTER DISMISSAL FROM THE EMR PROGRAM

By

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This study examined a group of educable mentally retarded (EMR) students who were dismissed from special education classes four years prior to the study. Those dismissed EMR students that were rereferred for psychological testing and possible special education placement were compared with the dismissed EMR students who were not rereferred. Of the seven characteristics used for this comparison, only three appeared to differentiate between the two groups. It was found that there was a higher percentage of males rereferred. There was also a trend for students in elementary school at the time of dismissal to be rereferred more frequently than those in middle school. It was also found that the specific school the students attended at the time of dismissal was a variable that discriminated between those students rereferred and those not

rereferred. Of the seven characteristics examined, four showed no indication of discriminating between the dismissed EMR students rereferred for psychological testing and those not rereferred. These four characteristics were race, the number of years spent in an EMR program before dismissal, placement at a rural or urban school at time of dismissal, and Adaptive Behavior Scale ratings at time of dismissal. There was no indication that any of the same seven characteristics discriminated between those dismissed EMR students rereferred and subsequently placed in a special education program and those rereferred and not placed in a special education program. One hundred and twenty students were included in this part of the study.

The study also examined the present achievement, learning, and behavioral status of 19 matched pairs of dismissed EMR students. One half of the student pairs was attending special education classes, the other half was in regular education classes. A comparison of reading and math scores on the Metropolitan Achievement Test indicated no real difference between the groups of pairs. The regular education teachers of each of the paired dismissed EMR students rated the students using the Burks Behavior Rating Scale and an informal rating scale. A comparison of mean scores indicated that there was no significant difference on the behavior ratings between those students returned to a special education program and those remaining in a regular education program. The trend was for a slightly lower rating in problem areas for the special education

students. All of the dismissed EMR students included in this study were performing well below average on the measure of achievement status and on the measure of learning and behavioral performance approximately four years after dismissal.

CHAPTER I

INTRODUCTION

The forces that effect special education practices can be divided into three areas; legislative acts, rulings in State and Federal courts, and the literature of professionals in the field. The trend of least restrictive environment for educable mentally retarded (EMR) students has evolved with the influence of each of these three areas.

Legislation such as P.L. 94-142 and Section 504 of the 1973 Vocational Rehabilitation Act was the culmination of the growing effect of court decisions and professional literature in favor of least restrictive environment. These two laws mandated that handicapped students must be educated with nonhandicapped students to the maximum extent appropriate.

Court rulings such as Larry P. v. Riles, 1972; Diana v. State Board of Education, 1973; and Stewart v. Philips, 1970 changed the testing practices for placing students in programs for the educable mentally retarded. An intelligence test score was no longer acceptable as the sole requirement for placing students into EMR classes. In 1973, the American Association on Mental Deficiency standardized a scale to measure adaptive behavior.

This Adaptive Behavior Scale (ABS) became commonly accepted as an additional criteria that was used to determine placement in EMR programs.

During this same year the American Association on Mental Deficiency (AAMD) changed the definition of EMR to exclude the borderline student. A definition of one standard deviation below the mean was changed to two standard deviations below the mean.

Also the professionals in the field of special education began to question the benefits of self-contained programs for the educable mentally retarded. Dunn's (1968) article in Exceptional Children was credited with starting the "efficacy studies." These studies proved to be basically inconclusive but greatly affected placement practices.

As local districts adopted the definition of two standard deviations, began testing for placement with the use of multiple instruments, and adopting a policy of mainstreaming several outcomes surfaced. The focus of placing students in EMR classes excluded the mildly handicapped and started focusing on the more severely handicapped. The prevelance for placement in MR classes dropped. Fewer students were placed, and those students that were still placed were often spending more of their time in regular education classes.

The question of what happened to those previously placed EMR students when these trends affected placement practices needs to be addressed. Some of the students were left in the special education program, but were sent to regular education classes for

the majority of the school day. Others remained in special education classes until graduation. Still others were dismissed from the EMR program in large numbers. The states of California, New Mexico, and Florida followed this practice.

The Problem

Previously the major criteria that determined the placement of a student in the EMR programs located in the public schools of Florida was an intelligence score within the range of 50 to 75. With the advent of the new AAMD definition, the ABS scale, the emphasis on mainstreaming, and court cases concerning the issue of testing and placement, the placement status of many EMR students was reviewed. As a result of this review many EMR students were dismissed from their special education program.

In the Alachua County school system the dismissed EMR students were returned to regular education classes. Over a period of approximately four years many of the dismissed EMR students were rereferred for possible special education placement. Others were not rereferred. Many of the rereferred EMR students were reevaluated and recommended by a staffing committee for placement in various special education programs. Very little data is available concerning variables that differentiate between dismissed EMR students that were rereferred and those that were not rereferred. There is also little data available concerning variables that differentiate between dismissed EMR students that were rereferred and not placed

in a special education program and the students that were placed again in a special education program.

Dismissals from the EMR program were made on the basis of common criteria. However, differences among the students existed since teachers decided to refer some students and not to refer other students for reevaluation and possible special education placement. Some characteristics or variables affecting special education placement and referral seemed, upon observation by the writer, to have had an affect upon placement and referral decisions. Some of these variables were sex, race, grade level placement, number of years previously spent in an EMR program, ABS ratings, placement in an urban or rural school, and the specific school attended.

Other variables such as academic and behavioral performance are and have been important criteria for referral and placement in special education programs. It would appear that a comparison of those EMR students rereferred and placed in a special education program and those not rereferred across the above mentioned characteristics and variables would provide important information for the purpose of future referral and placement decisions.

Statement of the Problem

This study was designed to answer the following questions regarding the characteristics of dismissed EMR students that determine rereferral to a special education program:

1. What were the characteristics of the dismissed EMR students that were referred for possible placement in a special education

program and those that were not rereferred. The characteristics examined were:

(1) sex,

(2) race,

(3) grade level placement at time of dismissal,

(4) number of years in an EMR program at time of dismissal,

(5) ABS ratings at time of dismissal,

(6) placement at an urban or rural school at time of dismissal,

(7) the specific school attended at time of dismissal.

2. What were the characteristics of the dismissed EMR students that were rereferred and placed in a special education program and those that were rereferred but not placed in a special education program? The same characteristics were examined as in question one.

3. What is the present academic status, learning, and behavioral performance of the dismissed EMR students that remained in regular education classes and those that were placed again in special education classes?

Delimitations and Limitations

The study was limited to the population of dismissed EMR students from the Alachua County School District. These students were dismissed at the end of the 1975-76 school year on the basis of IQ scores and Adaptive Behavior Scale (ABS) ratings.

Only a specific group of dismissed EMR students attending an Alachua County school during the winter of 1980 were included in

the second part of the study. The informal teacher ratings were subjective and had little structure.

The results are presented in the form of frequency data, average characteristics, and paired student data based on tabulations. Many of the data from this study were nominal or ordinal in nature and were presented by use of descriptive statistics. The interpretation of such findings is limited primarily to statements of percentages or rankings.

Justification of the Study

As the emphasis on serving the more severely retarded student in special education continues, new decisions must continue to be made concerning the placement of the mildly retarded student. There are still unanswered questions concerning what kind of placement is appropriate for these mildly handicapped students. Part of the answer to these questions involves a determination of what are the characteristics of a mildly retarded student that can be appropriately returned to regular education classes. Information is also needed that would indicate how previously placed special education students returned to regular education classes perform. This information needs to indicate the level of performance, behaviorally and academically, over a period of time.

The answer to these questions would have a major influence on special education program placement decisions that are made at staffings and in individual educational planning conferences. Individual student characteristics are examined at these staffings and conferences in order to determine the most appropriate

placement. The desired future level of student performance, academically and behaviorally, is also considered in making a placement decision.

The information gathered in this study should be valuable to professionals in decision making roles at staffings and individual educational planning conferences. The results of this study should prove useful in deciding what is the most appropriate placement for each individual mildly retarded student.

Assumptions

It was assumed that the teachers objectively rated the subjects in this study. It was also assumed that the subjects responded optimally to all tests administered. Test scores and ratings are assumed to accurately reflect the level of performance of each subject at a given point in time.

Definition of Terms

Educable mentally retarded. "One who is mildly impaired in intellectual and adaptive behavior and whose development reflects a reduced rate of learning. The measured intelligence of an educable mentally retarded student generally falls between two (2) and three (3) standard deviations below the mean and the assessed adaptive behavior falls below age and cultural expectations" (Florida Statutes, State Board of Education Rule 6A-6.3011).

Educable mentally retarded program. "The program for the educable mentally retarded is provided in order to meet the special needs of these students in the areas of basic skills, career education, psychomotor development, and social-personal skills at the prereadiness, readiness, developmental, developmental-functional, and functional levels. Program goals and objectives are structured to meet the state-adopted minimum performance standards for the educable mentally retarded" (Alachua County Schools District Procedures for Providing Special Education, 1979-80, p. 25).

Special education program. For this study the term special education program refers to the resource room model.

Questions

This study focused on the question of what were the characteristics of the dismissed EMR students that were rereferred for psychological testing and possible placement in special education and those that were not rereferred. The characteristics examined were:

(1) sex,

(2) race,

(3) grade level placement at time of dismissal,

(4) number of years in an EMR program at time of dismissal,

(5) ABS ratings at time of dismissal,

(6) placement at an urban or rural school at time of dismissal.

(7) the specific school attended at time of dismissal.

The second question was what are the characteristics of the rereferred students that were subsequently placed in a special education program. The same characteristics were examined as in the first question.

The third question examined the present academic status, learning, and behavioral performance of the dismissed EMR students. Students presently in special education classes are compared to students that were never rereferred and subsequently placed in special education classes.

CHAPTER II

REVIEW OF RELATED LITERATURE

Special education has come to place an emphasis on the least restrictive environment concept. This trend is an outgrowth of rulings in state and federal courts and state and federal legislation such as P.L. 94-142 and Section 504 of the 1973 Vocational Rehabilitation Act. The so-called efficacy studies and their failure to clearly indicate the positive effects of special class placement (Smith, 1977) has also influenced this trend.

The programs for educable mentally retarded (EMR) students have followed this trend. An emphasis has been placed on mainstreaming, least restrictive environment, and a change in definition that focuses on the more severely retarded.

In the early 1970's there occurred a series of litigations filed against school districts to object to the sole use of intelligence test scores in determining placement in special education. Larry P. v. Riles in 1972 objected to the use of a single instrument in placing black children into programs for the educable mentally retarded. The court found that intelligence test scores influenced teacher evaluation of students. The San Francisco School District was told to change testing and

placement policies immediately (Collings & Singletary, 1973). The complaintant argued that the children were not mentally retarded, but were "the victims of a testing procedure which fails to recognize their unfamiliarity with the white middle class cultural background" (Study Report, 1978, p. 19).

Diana v. State Board of Education was heard in June 1973. The issues were similar to those in Larry P. v. Riles. The issue was with the placement of Mexican-American students in EMR programs. It was found that if the children were retested in their most proficient language, English and/or Spanish, seven of nine scored well above the cut-off score of 70. The average gain of points on retesting was 15.

Steward v. Philips was heard in Boston in 1970. The court found that poor or black students were misclassified as mentally retarded. It was stated that the classification of the children as EMR was based "exclusively upon tests which discriminate against [plaintiffs] in that these tests are standardized on a population which is white and dissimilar to the [plaintiffs]" (Study Report, 1978, p. 19).

In the Fall of 1973 the Children's Defense Fund conducted a study. The study took place in 505 school districts in Alabama, Arkansas, Georgia, Mississippi, and South Carolina. The study found that over 80 percent of the EMR students were black when for total enrollment the percentage was 40 percent. A National Education Association panel did a similar study in two North Santa Barbara districts. One district had 46 percent of the EMR students that were

Chicano, when 26 percent of the total population was Chicano. In the other district, 23 percent of the EMR classes were made up of Chicanos when the percentage for the total population was 13 percent.

In 1975, three states had regulations against placing students only on the basis of intelligence tests (Abeson & Ballard, 1976). The most significant addition to evaluation for possible placement in an EMR classroom was the measurement of adaptive behavior. Robinson and Robinson (1965) defined adaptive behavior as "the individual's effectiveness in maintaining himself independently and in meeting the demands of his environment" (p. 444). This was not a new concept, but the development of an instrument to measure adaptive behavior for school age students did not occur until 1972. The American Association on Mental Deficiency (AAMD) standardized their Adaptive Behavior Scale (ABS) on 2600 school children in the State of California during the 1972-73 school year. This project was supported by the California State Department of Education. With the publication of this scale and the impetus of court decisions by 1975, the requirement of measuring adaptive behavior as well as intelligence before deciding to place a child in an EMR program became the official policy of many states and the law of California (Lambert, Windmiller, Cole, & Giguero, 1975).

As the concept of measurement for EMR students was broadened, the concept of a definition for EMR students became more narrowly defined. The 1961 manual on terminology and classification in mental retardation published by the AAMD defined subnormal intelligence as one standard deviation below the general population mean. Some states

placed students with IQ scores below 85. The majority of states used the IQ range 50 to 75 to define an EMR student (Dunn, 1963).

In 1973, the AAMD amended its definition of mental retardation to exclude the borderline student and only include persons whose performance was two or more standard deviations below the mean (usually an IQ score below 70) on a standard assessment of intellectual functioning associated with a deficiency in adaptive behavior. Following this change several states changed policies to reflect this new definition. In 1975, the State of Florida adopted the new definition (Resource Manual, Florida Department of Education, 1979).

These two events, the addition of the measurement of adaptive behavior and the new AAMD definition, led to a significant decrease in the prevalence of EMR students. The President's Committee Report stated that the prevalence of school age children would be 3 percent if an IQ score alone was used to determine placement. If the dimension of adaptive behavior was also used, the prevalence would be reduced to nearly 1 percent (1977).

The so called "efficacy studies" that occurred during the late 1960's and early 1970's had a major impact on the placement of EMR students. Dunn's "Special Education for the Mildly Retarded--Is Much of It Justifiable?" published in 1968 is credited by many as the catalyst of the efficacy studies. These studies questioned the benefits of placing mildly retarded students in special classes. Dunn stated that students who are mildly handicapped are not best served by special education

classes because of the crippling effects of labeling, because efficacy studies have not yielded definite results and because general education was then better equipped to handle the mildly handicapped (Smith, 1977).

Kirk (1964) had previously reviewed the efficacy research between 1932 and 1961. He stated that the special class placement had not been proven to be more beneficial to students than placement in regular classes. The research was not definitive, according to Kirk, "since the studies suffered from the in situ nature of the investigations, lack of control of the selection factor, the short period of time the children were enrolled in special classes after failure in the regular grades, little definition of the programs of the special classes, and the questionable reliability and validity of the instruments used to measure achievement and adjustment" (pp. 92-93). Most writers supported Dunn's original contentions. Lilly (1970) recommended that self-contained special classes should only be used for the severely retarded. Christopolos and Renz (1969) stated that all handicapped students, not just the mildly handicapped, should be integrated into regular classes. But the profusion of studies generated by Dunn's article were also generally inconclusive (e.g., Christopolos, 1973; Hammons, 1972; Lilly, 1970; Polloway & Snell, 1975).

Birch (1974) states that mainstreaming began without systematic planning for evaluation and without a national evaluation component. But, it did begin. The National Association for Retarded Children

(Birch, 1974, p. 5) defined mainstreaming as "a philosophy or principal of educational service delivery which is implemented by providing a variety of classroom and instructional alternatives that are appopriate to the individual educational plan for each student and allows maximal temporal, social, and instructional interaction among mentally retarded and nonretarded students in the normal course of the school day." Since mainstreaming was put into practice there have been many studies listing the advantages and disadvantages of the impact of mainstreaming. The results of these studies can be divided into five advantages and four disadvantages. The five advantages are as follows:

1. Handicapped students achieve more academically and socially when mainstreamed into regular education classes.

2. In the mainstream, handicapped students are not labeled as readily by peers and teachers.

3. Placement in regular classes helps the handicapped adjust and cope with the real world.

4. When mainstreaming occurs, the nonhandicapped develop a better ability to accept the handicapped.

5. Instruction is more individualized for the nonhandicapped in the mainstreamed regular classroom.

The disadvantages are as follows:

1. The handicapped student does not have the will, attitude, or capacity to cope in the mainstream.

2. Physical integration does not ensure instructional integration.

3. Physical integration does not ensure social integration.

4. In most cases the needed resources for successful mainstreaming are not provided or used (Calgary Board of Education, 1978).

The first advantage, that the handicapped achieve more academically and socially when placed in the mainstream, is generally accepted by professionals in the field (Calgary Board of Education, 1978). Kaufman, Semmel, and Agard (1973) found that the placement of handicapped students with nonhandicapped students stimulated the cognitive development of the handicapped. Weiniger (1973) found that the nonhandicapped serve as a model of appropriate behaviors for the handicapped. Dunn (1968) also felt that the problems in the placement and misplacement of the borderline handicapped student became less obvious if the student remained in the regular class.

The Calgary Board of Education study conducted in 1978 was a comprehensive review of literature concerning the effectiveness of resource rooms, special classes, and regular classes. The study reported that there is no evidence that supports the contention that segregation (special class) improves cognitive development in Educable Mentally Handicapped (EMH) children. The study also found that regular class placement may be equal to but is not better than resource room placement.

Carroll (1967) and Welch (1966) compared 19 students in special classes versus 19 students in mainstreamed classes. Mean chronological age and IQ was controlled. None of the subjects had previous experiences in special classes. There was no special treatment or attempt to control curriculum and instruction in either class placement. The Wide Range Achievement Test was administered to both groups of students at the end of one month and at the end of eight months. The mainstreamed group was found to have made significantly greater gains in reading.

Myers et al. (1975) studied over 11,000 EMR students mainstreamed in California during the years 1969-1972. Three different groups of students were examined. One group consisted of mainstreamed students, the second of special class students, and the third of regular class students. The students in all three groups were randomly selected from 12 school districts. Six levels of the Metropolitan Achievement Test (MAT) were administered to the students. The appropriate level of administration of the MAT was dtermined by the students' teachers. In a comparison of mean grade level of performance, the ranking of student performance by group was consistent with one exception. The regular class group was ranked the highest, the mainstreamed group ranked the next to the highest, and the special class group ranked the lowest. The exception in one area was thought to reflect the Scheffe test's failure to detect significant differences in districts where the sample size was small. The authors concluded that the mainstreamed students did as well or better than

the special class students. This study, however, does have a selection bias, a preplacement failure bias, and matching difficulties.

Some studies have indicated that there is no difference between the academic performance of mainstreamed students and special class students. Schell (1959) conducted a two year study on 15 pairs of EMR students enrolled in special classes and in regular classes. The special class students had not been previously placed in a special class. The 15 pairs of students were matched on Binet IQ scores, chronological age, mental age, and sex. The Stanford Achievement Test was used to measure achievement performance. Schell found that two years later there were no differences between the two groups in achievement.

Bradfield, Brown, Kaplan, Rickert, and Stannard (1973) examined the academic achievement, self-concept, and behavior of EMR students in regular classes and in special classes. The mainstreamed class had an adult:student ratio of 1:14 and also had a series of 10 inservice training teachers in the classroom. The curriculum utilized learning centers, individualized instruction, and behavior modification techniques. At the end of the first year the special class group did as well as the mainstreamed class. At the end of the second year there was no difference in growth between the two groups.

In the area of affective development, the 1977 Alberta Report concluded that the literature review showed mainly mixed results. Those studies that showed a difference favored integration

(mainstreaming). They also concluded that there was no difference found in motivation of personal adjustment in segregated (special) or regular classes. Of those studies reviewed in the area of social development, one-third found data in favor of segregated classes and two-thirds found no difference between segregated and integrated classroom students. They concluded that there was no support for total segregation of EMH students in studies that assessed behavior (Calgary Board of Education, 1978).

The second advantage of mainstreaming is that mainstreamed students are not labeled as readily by peers and teachers as special class students. Labeling is considered by many professionals as negative and contributing to the "self-fulfilling prophecy." The Association for Integration of Handicapped felt that the handicapped are deprived by society when they are labeled and segregated (Calgary Board of Education, 1978). Gottlieb and Budoff (1972) said that labeling modifies behavior to fit the status of the student. Weininger (1973) found that labeling lowered teacher expectation. Dirr and Laughlin (1974) found that when students are integrated with no labels, they are considered only as individual students with weaknesses that need remediation.

MacMillian, Jones, and Aloia (1974), however, said that there is no research to prove a stigma for being labeled retarded. They also felt that the advantages of labeling outweighed the disadvantages of labeling. Carvajal (1972) said that the physical setting for a handicapped student, integrated or not, does not affect self-concept.

Budoff and Gottlieb (1974) agreed with Kirk (1964) in that those students referred and placed were different from those never identified. They compared a group of special class students returned to regular classes with support to a similar group of students left in special classes. Those students returned to regular classes were removed to another school to reduce the effects of labeling. It was found that the special class students returned to regular classes isolated themselves, withdrew, or acted in other ways differently toward their classmates. However, at the end of one year it was found that the returned special class students had a more positive attitude toward school.

Shotel, Iano, and McGettigan (1972) surveyed regular teachers who had resource EMH students. It was reported that the EMH students did not integrate well academically or socially in the classroom and were in the lowest group of achievers. The students were frequently teased and did not participate in regular class activities.

The third advantage proposed is that an integrated setting helps the handicapped students adjust and cope with the real world. Christopolos and Renz (1969) stated that mainstreaming allows the EMH student to become more familiar with the nonhandicapped and gain socially accpetable behaviors. Gjessing (1972) stated that mainstreaming prevents an over-dependence on a small group setting which is not often found in the real world. Integration also helps students adapt more readily to society as a whole.

The fourth advantage of mainstreaming proposed is that the nonhandicapped develop a better ability to accept the handicapped. Unless nonhandicapped students are exposed to the handicapped, the stereotypes of the handicapped will remain (Brenton, 1974). The Association for Integration of Handicapped Children supported the contention that the only way for the nonhandicapped to understand the problems of the handicapped and appreciate the handicapped as individuals is through integration.

The fifth advantage proposed is that instruction in segregated classrooms is more individualized than in regular (non-segregated) classrooms. Jordan (1974) stated that when a close relationship exists between regular and special class teachers, as is encouraged in mainstreaming, all students benefit. Bradfield et al. (1973) found that regular teachers can teach well in integrated classrooms if instruction is individualized. In their study of an integrated classroom, it was found that fourth grade students made significant academic gains. Teachers also found as many non-labeled students having learning problems as labeled students. A study done in the Marshall Independent School District (1973) found that regular classroom teachers with integrated students promoted more individualized instruction for all students. However, Christopolos and Renz stated that "there has been no reliable evidence produced to indicate that differential benefits either social or academic, accrue to regular students as a result of either the exclusion or inclusion of exceptional students in regular classes (1969, p. 373).

Five possible disadvantages to mainstreaming can be found in the literature. The first is that the handicapped student may not have the will, attitude, or capacity to cope in a mainstream environment. Folman and Budoff (1971) found that mainstreamed handicapped students felt uncomfortable with nonhandicapped peers, but felt at ease and even better than their special classmates. Gottlieb, Gambell, and Budoff (1974) found that after one year of integration the integrated students displayed more verbally aggressive behavior than their regular classmates. The authors concluded that the integrated student must continually make adjustments and adapt. Gottlieb, Nero, and Associates stated in a paper presented at the AAMD Annual Conference in 1977 that the mainstreamed student lacks a feeling of confidence and worth. As a result, he may perceive a neutral experience as a negative experience. If this perception is internalized, the student will acquire an increased feeling of isolation and rejection.

The second disadvantage to mainstreaming is that just physical integration does not insure social integration. Many professionals support the contention that handicapped students in integrated classes are isolated and rejected by the regular classmates (Johnson & Kirk, 1950). Cassidy and Stanton (1959) believe that this undesirable situation is a result of the fact that regular teachers are not as concerned with social adjustment as special education teachers. Goodman, Gottlieb, and Harrison (1972) found that an integrated class placement does not ensure a more familiar attitude

from regular students toward handicapped students. Gottlieb and Budoff (1973) replicated the same study and found that handicapped student placement in regular classes did not improve the social acceptability of the handicapped. Johnson et al. (1979) found that class structure was the key to a higher level of interaction between handicapped and nonhandicapped students in the mainstream. They found that a cooperative atmosphere fostered more positive interactions than individualistic or laissez-faire conditions.

The third disadvantage of mainstreaming is that physical integration does not ensure instructional integration. Handicapped students may be isolated by the level of their classroom activities or be required to perform above their ability level. Cruickshank (1975) indicated that there are limits to how much individualization a regular education teacher can offer a heterogenous group of students.

The fourth disadvantage of mainstreaming is that the human and material resources needed to successfully integrate the handicapped may not be provided or used. The teacher of an integrated class is an important factor in the success of that program. Buttery and Mason (1979) found that the teacher was the most important variable in the reading success of mildly mentally retarded students in the mainstream. The best teachers always found the best method to teach reading. Shotel, Iano, and Mettigan (1972) reported that teachers felt they could not teach an integrated class unless they were given special materials and used special methods. Even when access to the special education

teacher's resources was provided, it was found that the regular teachers did not work closely with the special education teacher (Marshall Independent School District, 1973).

The study most closely related to the present study was done in 1977. Smith (1977) did a follow-up of 35 of the dismissed EMR students in Alachua County, Florida. They were matched with 31 control students in regular education classes. The dismissed EMR students had been placed in regular classes for approximately eight months at the time of the study. Smith found that both control students and dismissed EMR students had improved in academic status. There was no significant difference found in the amount of academic growth of each group, nor was there a significant change in self-concept. Smith found that the academic level of functioning did not predict the length of time the dismissed EMR students would remain in regular classes before they were referred. She did find that the more positive the self-concept the less likely it was that the student would be referred. At the time of this study 13 of the 35 dismissed EMR students had been rereferred. Seven of the 13 students had been returned to a special education class. Four students were placed in a program for learning disabled students, and one was returned to an EMR program.

An overview of the research on mainstreaming reveals some frequently occurring flaws. They are a question concerning selection bias and the variables chosen for matching students, questionable measurement techniques, and control of variables. The selection bias frequently came from the lack of a random method of assigning

students to experimental groups. Another contributor was that frequently studies used students that had already been in special education classes. These students had already had many experiences with school failure. It is difficult to determine which variables needed to be matched when choosing paired students for study. The variables most frequently used were sex, IQ score, mental age, and chronological age. But some professionals feel that the relevant variables are motivation, socio-economic status and background, values, and personality factors. Some of the measurement techniques used in the studies were questionable. Some instruments were validated on only normal children. The content validity of the tests are usually based on regular, not special, class curriculum. Very few of the studies controlled the teaching procedures and/or curricula used with the experimental groups (Smith, 1977). Bradfield et al. (1973) conducted a study that offered the best description of curriculum strategies and materials.

The Calgary Board of Education study (1978) summarized the mainstreaming research findings, "Research on the short term effects of integration does not demonstrate the absolute superiority of any one form of educational placement for the handicapped" (p. 11). There is no support that special class benefits the EMR student in the area of cognitive achievement. The findings do suggest that mainstreaming or the type of instruction is less important than the quality or format. Some form of segregation is recommended for cognitive achievement development. The acceptance of the handicapped by their regular peers in an integrated setting is a problem,

and the results on studies of self-concept are mixed. Finally, "there is no evidence concerning the long-term effects of integration" (Calgary Board of Education, 1978, p. 22). There have been too few studies done to support any conclusion.

Even though the issue was never completely resolved, the practice of sending EMR students to the regular classroom for at least part of the school day has been adopted. The National Education Association (NEA) in 1975 surveyed 44 states on this practice. They found that 22 or 50 percent of the states reported that there was a state law or regulation in effect that handicapped children be placed in regular classes at least some of the time (Abeson & Ballard, 1976).

Least restrictive environment has also been legislated at the Federal level. In 1973, the Vocational Rehabilitation Act (P.L. 93-112) was signed into law. Section 504 of the act provided that handicapped persons cannot be discriminated against solely on the basis of their handicap. The regulations for Section 504 were issued in April, 1977 (Resource Manual, 1979).

In 1975, P.L. 94-142, The Education for All Handicapped Children Act, was passed in Congress. This legislation expanded and revised Part B of the Education of the Handicapped Act. In August of 1977, the final regulations for P.L. 94-142 were completed (Resource Manual, 1979).

These two laws are viewed as different but compatible, "Section 504 is a basic civil rights statement on behalf of handicapped persons. P.L. 94-142 is a support program to assist states

and districts with provision of education of handicapped children. Any recipient of funds from HEW is bound by the requirements of Section 504. States and districts that agree to follow the requirements of P.L. 94-142 are eligible to receive funds" (Resource Manual for Development and Evaluation, 1979, p. 2). Both laws and regulations for both acts mandate least restrictive setting. P.L. 94-142 specifically requires that handicapped students shall be educated to the maximum extent appropriate with children who are not handicapped. Both laws also mandate non-discriminatory testing. Specifically, P.L. 94-142 requires all testing and evaluation materials and procedures"

> To be selected and administered so as not to be racially of culturally discriminatory.
> To be provided and administered in the child's native language or other mode of communications, unless it is clearly not feasible to do so.
> To have been validated for the specific purpose for which they are used.
> To be administered by trained personnel in conformance with the instructions provided by their producer.
> To include tests and evaluation materials tailored to assess specific areas of educational need and not merely those which are designed to provide a single general intelligence quotient.
> Also prohibits the use of any single procedure to be used as the sole criterion for determining an appropriate educational program. (A Study Report, 1979, p. 17)

Federal laws mandating least restrictive environment are the culmination of a series of events. Court cases such as Larry P. v. Riles, Diana v. State Board of Education, and Stewart v. Philips changed the testing and placement practices for EMR students. From this impetus came a new AAMD definition of EMR and the development of a widely accepted scale for measuring adaptive behavior. These events led to a reduction in prevalence. Almost

simultaneously the professionals in the field of special education showed an increased concern over the benefits of special class placement for the mildly retarded. There was a significant increase in studies comparing special class students, mainstreamed students, and/or EMR students and slow learners placed full-time in regular classes. These studies examined the impact of mainstreaming on the achievement and emotional development of the students' the effects of labeling; changes in classroom instruction; level of student acceptance; physical, social, and academic integration; and the resources needed for program success. The majority of these studies suffered from the problems of selection bias, questions concerning variables used in matching students, questionable measurement techniques, and a lack of control over variables.

However, some conclusions can still be drawn from a review of these studies. The research on the short term effects of mainstreaming does not show definite superiority of one form of education over all others. There is no support that special class placement alone had positively affected the EMR students' cognitive development, but that some form of segregation is needed to encourage cognitive development. The studies of self-concept show mixed results, and acceptance by the nonhandicapped is a problem in the mainstream. There is a definite lack of a body of research on the long term effects of integration.

Even though the research is not entirely conclusive, there is common acceptance for the concept of mainstreaming. This acceptance has resulted in federal law mandating the application of the concept

of least restrictive environment for all handicapped students. The passage of P.L. 94-142 and Se ction 504 of the 1973 Vocational Rehabilitation Act has written this philosophy in the Federal Register. This philosophy is now a totally mandated practice in all states.

CHAPTER III

METHODS AND PROCEDURES

Subjects

The study was conducted in Alachua County, in north central Florida. The population of Alachua County was 133,817 in November 1979. The county houses one of the major universities of the state.

The county school population in 1980 was 22,097 students. The 30 schools in Alachua County are divided into 18 elementary schools, six middle schools, and six high schools. In addition, the county school system includes one school for emotionally handicapped students, one for trainable and profoundly retarded students, and various other programs in adult and vocational education. All schools are racially integrated. In 1979, 46 percent of the teachers had bachelor's degrees and 54 percent had master's degrees or higher.

The population of EMR students for the 1975-76 school year was 377. In the spring of 1976, 167, or 44.3 percent of the EMR students, were dismissed on the basis of IQ scores and ABS ratings. The ABS ratings were examined in the areas of independent functioning, economic activities, vocational activities, and responsibility.

Independent functioning, economic activities, and vocational activities were chosen for examination because the developers of the ABS considered these areas sensitive to "pseudo" retardation. Responsibility was chosen based on the results of the Alachua County standardization of the ABS. Ratings in the category of Responsibility were found to differentiate statistically between the lower functioning students and the higher functioning students.

To be considered for dismissal, a student had to have an IQ score of 63 or above on an individually administered intelligence test. A student must also have been rated in the top 50 percent on three areas of the ABS, or have been rated in the top 75 percent in two areas on the ABS. A few students (less than 10) were not dismissed even though they met the dismissal requirements. These students were discussed in individual conferences and were determined to be incapable of functioning in the regular classroom. In the Fall of 1976, the dismissed EMR students were enrolled in regular classes.

The subjects for this study were the dismissed EMR students that attended an Alachua County Public School during the winter of 1979. For the first question they were placed into one of two groups. The groups were (1) students never rereferred for psychological evaluation and (2) students rereferred for psychological evaluation. The subjects for the second question were placed into one of two groups. The groups were (1) students rereferred for psychological evaluation and not returned to special education classes and (2) students rereferred for psychological

evaluation and returned to special education classes. For the third question, the dismissed EMR students were placed into two groups. The groups were (1) students not rereferred and were placed in regular education classes during the winter of 1979 and (2) students rereferred and were placed in special education classes during the winter of 1979. These two groups of 38 students were matched on the basis of IQ scores, age, grade placement, and school placement.

Instrumentation

For question one and two a form was developed to collect the data. The data collected included the following: sex, race, grade level placement at time of dismissal, number of years in an EMR program before dismissal, ABS ratings at time of dismissal, placement at an urban or rural school at time of dismissal, and the specific school attended at time of dismissal.

For question three, three separate instruments were used. These instruments were the Metropolitan Achievement Test (MAT), Florida State-wide Assessment Test (FSAT), and the Burk's Behavior Rating Scale. The Metropolitan Achievement Test (MAT), 1970 edition, was used to collect information concerning student achievement levels for grades 8-10. The MAT is a series of six tests each covering a different grade level of performance. The levels are kindergarten-1.4, 1.5-2.4, 2.5-3.4, 3.5-4.9, 5.0-6.9, 7.0-9.5. The subtests of reading and mathematics were used in this

study. Reading skills included word knowledge and reading. Mathematic skills included computation, concepts, and problem solving (Buros, 1974).

Wolf (1978, p. 67) stated that the MAT has a "long and distinguished history in the field of testing." The content of the tests was derived from an analysis of textbook series, curricular syllabuses and statements of curriculum experts, and various state and national committees. Gronlund (1978) stated that the major weakness of the MAT was that test content development was at least ten years old. He questioned the MAT's relevancy to the modern curricula. The test items were reviewed by minority group members for bias and then revised. Wolf (1978) stated that there was a careful selection of the standardization sample, but Wingard and Bentler (1974) stated that the accuracy of the demographic data used to form the normative sample was questionable. The median income used was $5,600 as indicated in the 1960 census data. But the 1969 census data indicated a medium income level of $9,586. Wingard and Bentler felt that this discrepancy led to a disproportionate number of low income and low ability students being included in the sample. As a result of this over representation, any school district using the national norms would appear to score higher. All forms for each of the six grade level batteries were administered. A dual standardization program was used. As a result empirical norms for fall and spring testing are available (Wolf, 1978).

Reliability was based on measures of internal consistancy. Reliability is .90 or higher for each test at all levels. Information on alternate form reliability is lacking (Gronlund, 1978), and there is a complete absence of information about the stability of the test over a period of time (Wingard & Bentler, 1974). The standard errors of measurement are generally low. They rarely exceed four standard score points (Wolf, 1978).

The multiple choice items in most areas have a "Don't Know" response choice to reduce guessing. Wolf (1978) stated that this option was well used and effective in reducing guessing, but Gronlund (1978) said that the test-wise student would not choose the "Don't Know" option because it would not contribute to his score. An unsure student may mark "Don't Know" when not positively sure of the answer. This test taking behavior would result in a reduced validity. Wolf (1978, p. 68) stated that the "directions for administration are exceptionally thorough and clear." The Burk's Rating Scale manual addresses the limitation of grade equivalents and recommends they be used only for interpretation of averages, not individual scores.

For Florida State Student Assessment Test Part II (SSAT-II) was used in this study to collect achievement data on 11th and 12th grade students. The impetus for this test came from the Florida Accountability Act of 1976 which mandated a state-wide collection of meaningful student achievement data. The act charged the Department of Education to develop and measure "Minimum Student Performance Standards for certain minimum competencies in the

basic skills of reading, writing, and mathematics in grades 3, 5, 8, and 11" (State and District Report, 1980, p. 1).

Standards for this assessment were adopted in April, 1977. An intensive review of these standards occurred from November 1977 through February 1979. This review was conducted by the Florida Department of Education, universities in the state, and local school districts. More than 2,000 basic skills teachers from nearly 200 elementary, middle, junior high, and senior high schools were involved. Also included in this review were representatives of the Florida State Reading Council, the Florida Council of Language Arts Supervisors, the Florida Council of Teachers of English, and the Florida Council of Teachers of Mathematics. The 67 Florida school districts were involved in a field review by a selected group of teachers, principals, and lay citizens (Minimum Student Performance Standards, 1979).

The SSAT II measures basic skills at the 11th grade level. The skills are related to each Minimum Performance Standard. Each skill is usually measured by four or five test items. The test questions were designed to indicate whether or not the student had mastered the minimum standards and skills. The SSAT-II for grade 11 is divided into communication skills and mathematics. The communication skills section consists of 11 skills covered by 60 questions. The Mathematics section consists of 13 skills covered by 60 questions (1979-80 State and District Report).

A student must successfully complete both sections by correctly answering, on any one administration of the test, approximately 80 percent of the required items per standard. State-wide during the 1979-80 year, 90 percent or more students mastered eight of 11 communication skills. Eighty-four to 87 percent of the remaining three skills were mastered by 80 percent or more of the students.

> Students did well in determining (1) equivalent amounts up to $100 using coins and currency (99 percent mastery), (2) the solution to real-word problems involving one and two distinct whole number operations (88 percent), and (3) determining relationships described by graphs and tables (97 percent). However, less than 50 percent of the eleventh grade students were successful in determining the solution to real-world problems involving comparison shopping. (State and District Report, 1979-80, p. 11)

The Burks' Behavior Rating Scales (1977) were used in this study. The author of this scale has written that the scale is "designed to identify patterns of pathological behavior shown by children who have been referred to school or community counseling agencies because of behavior difficulties in classroom and home" (Burks, 1977, p. 5). The scale is also designed to identify patterns of problems and to gauge their severity. There are 110 items divided into 19 clusters. The behavior these items represent are said to be infrequently observed among normal children. Although certain syndromes appear somewhat in almost every group, factor analysis is stated to have shown that subscale scores indicate different patterns for categories of special education.

The first five categories, excessive self-blame, excessive dependency, excessive anxiety, excessive withdrawal, and poor ego

strength are said to be learned defense mechanisms against outward stress. The next four categories, poor physical strength, poor coordination, poor intellectuality, and poor academics, are said to be indicative of a student that learns at a slow rate. Poor attention and poor impulse control are usually outgrown by early adolescence. Poor reality contact, poor sense of identity, and excessive suffering are indicative of individuals "unwilling to become involved constructively with his/her environment" (Burks, 1977, p. 8). Poor anger control, excessive sense of persecution, excessive aggressiveness, excessive resistance, and poor social conformity are indicative of an outward expression of hostility, an individual who is not willing to go along with socially acceptable standards and "extreme resistance to becoming dependent on the goodwill of others, particularly adults" (Burks, 1977, p. 8).

Of the 110 scale items, part were chosen from a previous checklist developed by Burks. The other items were chosen after meeting a set of standards. These standards were that the item could distinguish between children placed in classes for disturbed children and those placed in regular classes, could show evidence of a high test-retest reliability correlation coefficient, could be judged by a panel of educational specialists to be accurately descriptive, clear and concise, and could be shown by factor analysis to be grouped into categories that could be assigned a behavioral label. The behavioral statements in each category are not listed together. This arrangement was made to avoid a rater bias on similar items grouped together. The profile of scores labeled "significant" and

"very significant" have an arbitrary dividing line. Those scores beyond the "not significant" range were divided into one-half to make the "significant" and "very significant" categories.

The distribution of scores for regular class students was based on teacher ratings of 494 primary age children and 69 seventh and eighth grade students. All students were from the same school district and had a population of 70 percent Mexican-Americans. There were equal numbers of boys and girls. The teachers of the primary age students were asked to rate the first 12 children on their rosters. The seventh and eighth grade teachers were asked to rate the fifth and tenth child on the roster. Five to 14 percent of the students were rated as having moderate to severe problems and 10 to 15 percent were rated as having mild disturbances (Burks, 1977). This seems to be a rather high percentage for regular class students. The appropriateness of this group of students is questionable because of the high percentage of Mexican-American students. Since the group of students rated come from the same school district, the ability to generalize from population to population is severely limited.

Reliability for the scale ranged from .60 to .83. The average item/item retest correlation coefficient was .705. The basis for this correlation was the ratings of 95 disturbed children grades one through six. The students were rated again within a period of ten days (Burks, 1977). The author did not explain why only disturbed children were used to establish reliability, nor was there any reference to interrater reliability.

The validity was based on three standards. One was that the scale was constructed over a period of four years. Another was that the use of scales over eight years shows proof of content validity "without which the instrument would not make 'sense' to users" (Burks, 1977, p. 33). The third is that the items came from clinical observation literature.

Criterion-related validity was claimed by the author on the basis that some of the items used come from a previous instrument, the Burks' Behavior Rating Scale of Organic Brain Dysfunction. Evidence of organic brain dysfunction as defined by this scale was said to have been verified by a medical diagnosis.

Contrast group validity was claimed by the scales' ability to differentiate between independent groups. One group consisted of regular class students, the other of students referred, evaluated, and recommended for special education services. Chi square was used as the test statistic. The level of significance was .001 and chi square was 36.99.

Content validity was based on the fact that teachers helped develop the instrument and have used it over a period of time. Factorial validity was based on the finding of three pure factors. These factors were neurotic traits, immature traits, and hostile aggressive traits. These traits were found to be different for primary, elementary, and junior high students.

Construct validity was based on the use of a School Attitude Survey used with 47 students. These students were picked by teachers to have the most and the least inner disturbance. The

School Attitude Survey was given to the students and was to measure inner feeling. The teachers' selection of the students as having high or low inner disturbance was the measure of outer behavior. Twenty-three students matched on inner feelings and outer behavior. Fourteen students did not. The chi square was used as the test statistic. Chi square was 7.53 at the .01 level of significance.

Data Collection

The winter 1979, Alpha computer list from the Alachua County Public School System was used to determine which of the 167 dismissed EMR students were attending school in the district. The data needed in question one and two were collected from each student's placement record in the county's student record office and transcribed onto the recording form.

For question three, the MAT and State Assessment scores were gathered from each student's cumulative folder located in the records office at the school the student was attending during the winter of 1979. The Burk's scale was given to a regular education teacher for completion on each student.

Regular education teachers were selected to rate the students on the Burks' whether or not the students were attending a special education class. The selection of a regular education teacher was made to ensure a minimal level of uniformity of teacher training and experience. The regular education teachers chosen to rate the students taught academic courses.

The 38 students examined for question three were matched for IQ scores, age, grade level, and school placement. IQ scores were matched to within one standard error of measurement. Age and grade level was matched to within one year. Students chosen for matched pairs attended the same school to avoid any basic intra-school differences.

Data Analysis

The analysis of data for questions one and two was for the purpose of defining what are the characteristics of the dismissed EMR students that were rereferred and those not referred. For question two, the purpose was to define what are the characteristics of those dismissed EMR students that were rereferred, tested, and placed again in a special education program and those students rereferred, tested, but not placed again in a special education program.

The characteristics examined were the same for questions one and two. The characteristics were sex, race, grade level placement at time of dismissal, ABS ratings at the time of dismissal, number of years in an EMR program before dismissal, placement in an urban or a rural school at time of dismissal, and the specific school attended at the time of dismissal.

The categories of race that were used were white and non-white. The non-white category included 95 percent black students. Grade level placement was grouped into elementary and middle school levels. The elementary included grades one through five. The middle school

level included grades six through eight. The ABS ratings were examined according to the number of sub-ratings for each student in four percentile groupings. The four percentile groupings were 0-25 percent, 25-49 percent, 50-74 percent, 75 percent and up. Urban schools were defined as those schools within the immediate Gainesville area. Rural schools were defined as those schools in Newberry, High Springs, Archer, Hawthorne, and Alachua.

The analysis of the data for question three was for the purpose of defining the present achievement status, learning and behavioral performance of the dismissed EMR students presently in special education classes and of the dismissed EMR students that were not returned to special education classes.

MAT standard scores for total reading and total math were analyzed for students in grades eight through ten as an achievement measure. For grades 11 and 12, the number of skills passed in Communication and Mathematics on the SSAT-II was used as an achievement measure.

The Burks' ratings were analyzed for indications of the students' learning and behavioral performance. The number of areas rated as significant and very significant were analyzed for each pair of students.

CHAPTER IV

RESULTS

The results of a review of each of the student's individual placement record indicated that 120 of the original 167, or 72 percent of the dismissed EMR students, were still attending school in Alachua County. Of those 120 students 70, or 58 percent of the dismissed EMR students had been rereferred. The remaining 42 percent, or 50, students had remained in regular classes without being rereferred.

Of those 70 students rereferred 32, or 46 percent, of them were placed into classes for the learning disabled. Twelve, or 17 percent, were placed into classes for the emotionally handicapped. Seventeen, or 24 percent, were again placed into classes for the educable mentally retarded. Nine, or 13 percent, of the students were referred for reevaluation but were not placed again into a special education program. A majority of the dismissed EMR students were rereferred. A summary of this information is presented in Table 1.

For comparison purposes the placement status of the 172 EMR students left in the EMR program and still attending school in Alachua County was examined. Of those 172 students 36, or 21

percent, had made exceptional student program changes. Nineteen were later dismissed from EMR classes and placed into classes for the specific learning disabled (SLD). Six were dismissed from EMR classes and placed into classes for the emotionally handicapped (EH). Ten were dismissed from EMR classes and were placed into classes for the trainable mentally retarded (TMR). One student was dismissed from the EMR class and was placed into the program for the physically impaired.

Table 1

Summary of 120 Dismissed EMR Students Still Attending School in Alachua County

Total Students Rereferred = 70 (58%)	Total Students Not Rereferred = 50 (42%)
Students Placed in SLD = 32 (46%)	
Students Placed in EH = 12 (17%)	
Students Placed in EMR = 17 (24%)	
Students Not Placed = 9 (13%)	

Note: SLD = Specific Learning Disabilities
EH = Emotionally Handicapped

Question One

The purpose of question one was to examine the characteristics of the dismissed EMR students that were rereferred for psychological testing and possible placement in special education and those who were not rereferred. The characteristics examined were

(1) sex,

(2) race,

(3) grade level placement at time of dismissal,

(4) number of years in an EMR program at time of dismissal,

(5) ABS rating at time of dismissal,

(6) placement at an urban or rural school at time of dismissal,

(7) the specific school attended at time of dismissal.

The results of the examination of the first three characteristics are shown on Table 2. Of the 70 students rereferred 47, or 67 percent, were male. Twenty-three, or 33 percent, were female. The trend was reversed for those students not rereferred. Eighteen, or 36 percent, of the students were male and 32, or 64 percent, of the students were female. A higher percentage of males were rereferred than females.

Of the students rereferred 61, or 87 percent, were non-white and nine, or 13 percent, were white. This percentage spread was similar for the students not rereferred. Forty-five, or 90 percent, were non-white and five, or 10 percent, were white. The total non-white group was made up of 95 percent black students.

Table 2

Sex, Race, and Grade Level at Time of Dismissal From the Program

	Students Rereferred		Students Not Rereferred	
Sex	Male	47 (67%)	Male	18 (36%)
	Female	23 (33%)	Female	32 (64%)
Race	White	9 (13%)	White	5 (10%)
	Non-White	61 (87%)	Non-White	45 (90%)
Grade Level	Elementary	34 (50%)	Elementary	16 (34%)
	Middle	36 (50%)	Middle	34 (66%)

Of the 70 students rereferred 34, or 50 percent, were at the elementary grade level when dismissed. The remaining 36, or 50 percent, of the students were at the middle school level. There were approximately equal numbers of elementary and middle school students. Of those students not rereferred the trend was different. Thirty-four, or 66 percent, of the students were at the middle school level and 16, or 34 percent, of the students were at the elementary school level. Of those students rereferred, they were equally divided in elementary and middle schools; of those students not rereferred, the majority (66 percent) were in a middle school at time of dismissal.

The characteristic of the number of years spent in an EMR program before dismissal was examined. A summary is presented in Table 3. The pattern was similar for both the students rereferred and not rereferred. Of those rereferred, 44 percent had been in the program two years. Of those not rereferred, 48 percent had been in the program for two years. The next highest frequently was for those students that had been in the program for one year. Of those rereferred, 21 percent had been in the program for only one year. The percentage for those students not rereferred but were in the program for one year before dismissal was 16 percent.

Table 3

Number of Years in the EMR Program Before Dismissal

Years in Program	Students Rereferred	Students Not Rereferred
one	15 (21%)	8 (16%)
two	31 (44%)	24 (48%)
three	9	7
four	5	4
five	7	3
six or more	3	4

The ABS student ratings were examined by the use of percentage ranges. The ranges used were 0-24 percent, 25-49 percent, 50-74 percent, 75-99 percent. Each student was rated in one of these percentage ranges in a total of nine areas. The total number for all students in all nine areas in each of the percentile ranges were examined. The totals are shown in Table 4. Both groups were rated similarly. Of the total for students rereferred, 42 percent of the areas were rated 75-99 percent. Of the total for those students not rereferred, 48 percent of the areas were rated in the 75-99 percent range. The remaining ranges had approximately the same number of areas rated in each range. This was true for both those students rereferred and for those not rereferred.

Table 4

Adaptive Behavior Scale Ratings at Time of Dismissal

Percentage Range	Students Rereferred	Students Not Rereferred
0-24%	122 (19%)	67 (14%)
25-49%	146 (23%)	91 (19%)
50-74%	101 (16%)	87 (19%)
75-99%	263 (42%)	222 (48%)

The results of the examination of whether the students attended rural or urban schools at the time of dismissal from the EMR program are shown on Table 5. The results were similar for both groups. Of those students rereferred, 71 percent attended urban schools at time of dismissal. Twenty-nine percent attended rural schools. Of those students not rereferred, 80 percent had attended an urban school and 20 percent had attended a rural school. Both urban and rural schools were represented equally for those students not rereferred and for those students that were rereferred.

Table 5

Placement at Urban or Rural School at Time of Dismissal

Students Rereferred		Students Not Rereferred	
Urban Schools	50 (71%)	Urban Schools	40 (80%)
Rural Schools	20 (29%)	Rural Schools	10 (20%)

Analysis of the number of students rereferred and not rereferred by school was difficult because of the small numbers used. Of the 22 elementary and middel schools only those that had three or more students dismissed were examined by the use of

percentages. The complete display of data is located in Appendix A. Nine of the 16 elementary schools were examined by the use of percentages. All of the six middle schools were examined by the use of percentages.

Of the nine elementary schools examined, two had 33 percent of their students rereferred in the four years since dismissal from the EMR program. Four had less than 75 percent but more than 33 percent rereferred. The remaining three schools examined had 75 percent or more of the dismissed EMR students rereferred. The percentage of rereferral by school ranged from 33 percent to 100 percent. The percentage of students rereferred for the middle schools ranged from 25 to 100 percent. Four schools had 50 percent or less rereferred and two schools had more than 50 percent rereferred. There was a wide range in the percentage of dismissed EMR students rereferred when analyzed according to each specific school.

Question Two

The purpose of the second question was to examine the characteristics of the rereferred students that were subsequently placed in a special education program and those students that were not placed in a special education program. The characteristics examined were

(1) sex,

(2) race,

(3) grade level placement at time of dismissal,

(4) number of years in an EMR program at time of dismissal,

(5) ABS ratings at time of dismissal,

(6) placement at an urban or rural school at time of dismissal,

(7) the specific school attended at time of dismissal.

Only nine students were rereferred and not placed compared to 61 students that were rereferred and placed in a special education program. The small number of students not placed made the use of percentages in data analysis for question two a poor descriptive technique. Instead the data are presented in nominal form only. For those students rereferred and not placed seven were male and two were female. For those students placed, 40 were male and 21 were female. Representation in both groups appeared to be the same. There were no white students rereferred that were not placed, but only nine white students were rereferred. Nine of the 52 non-white students were rereferred and not placed. Six students not placed but rereferred were in elementary school at time of dismissal and 33 were in middle school. These data are presented in Table 6. The number of years the students had spent in EMR programs before dismissal followed the same pattern for those students rereferred and not placed as for those students rereferred and placed. The majority of students in both groups had been in the EMR program for two years. The exact number of students by number of years in the EMR program at time of dismissal is shown in Table 7.

Table 6

Sex, Race, and Grade Level Placement at Time of Dismissal

	Rereferred Students Not Placed		Rereferred Students Placed	
Sex	Male	7	Male	40
	Female	2	Female	21
Race	White	0	White	9
	Non-White	9	Non-White	52
Grade Level	Elementary	6	Elementary	28
	Middle	3	Middle	33

Table 7

Number of Years in the EMR Program Before Dismissal

Years in Program	Students Rereferred and Not Placed	Students Rereferred and Placed
one	2	13
two	5	26
three	2	7
four	0	5
five	0	7
six or more	0	3

The ABS students ratings were again examined by the use of percentage ranges. The ranges used were 0-24 percent, 25-49 percent, 50-74 percent, 75-99 percent. The totals for both groups according to percentile range are shown in Table 8. Of the total for students rereferred/not placed and for students placed the majority of areas rated were in the 75-99 percent range. The remaining ranges for both groups had approximately the same number of areas rated in each range.

Table 8

Adaptive Behavior Scale Ratings at Time of Dismissal

Percentage Range	Students Rereferred and Not Placed	Students Rereferred and Placed
0-24%	9	113
25-49%	24	122
50-74%	11	90
75-99%	37	226

Eight of the rereferred but not placed students were at urban schools at time of dismissal. One student had attended a rural school. A similar pattern is seen for those students re-referred and placed in special education programs. Urban schools

were represented by 42 students and rural schools were represented by 19 students. The results of urban vs. rural schools is shown on Table 9. The results of the analysis of the number of students rereferred and not placed compared to the students placed in special education classes broken down by specific school is contained in Appendix B. The numbers of students by school that were not placed was too small to allow for any meaningful analysis.

Table 9

Placement at Urban or Rural School at Time of Dismissal

Students Rereferred and Not Placed		Students Referred and Placed	
Urban Schools	8	Urban Schools	42
Rural Schools	1	Rural Schools	19

Question Three

The purpose of question three was to define the present achievement status, learning, and behavioral performance of the dismissed EMR students presently in special education classes and of dismissed EMR students that were not returned to special education classes. Nineteen pairs of students were matched for IQ scores, present grade placement, chronological age, and school placement. All schools chosen for this part of the study were urban.

The 19 special education students chosen for question three represented five different special education placement categories. Thirteen students were in specific learning disabilities (SLD) classrooms, two in classrooms for the emotionally handicapped (EH), two in classrooms for the educable mentally retarded (EMR), one in a classroom for the hearing impaired, and one in a dual program placement for emotionally handicapped and educable mentally retarded students.

Metropolitan Achievement Test (MAT) standard scores and grade equivalents for total math and total reading were collected for students in grades eight through ten as an achievement measure. For grades 11 and 12, the number of skills passed in Communication and Mathematics on the Florida State Student Assessment Test II (SSAT-II) was used as the achievement measure. A full profile of MAT scores is presented in Appendix C. For the analysis of data mean grade level scores and mean standard scores from the MAT for both matched groups were used. These means and the difference between the means for both groups are displayed on Table 10. A comparison of the means in reading indicates that the two groups performed at approximately the same level. A comparison of the means in math indicates that the two groups performed at approximately the same level.

Table 11 shows the comparison of the three eleventh and twelfth grade students on the SSAT-II. In two of the three pairs the regular education (students dismissed from EMR and not returned to special education classes) students did noticeably

better in communication and math skills. The remaining pair of students performed approximately the same in the SSAT-II.

Table 10

Mean Metropolitan Achievement Test Scores

	Special Education Students	Regular Education Students	Difference
	Reading		
Grade Equivalent	3.4	3.3	.1
Standard Score	629	614	15
	Math		
Grade Equivalent	4.2	4.5	-.3
Standard Score	598	592	6

n=16 pairs

The Burks' ratings were analyzed for indications of the students' learning and behavioral performance. The total number of items rated as significant and very significant were calculated for each student. The paired student ratings can be found in Appendix D. Table 12 shows the mean number of items rated as significant and very significant for the dismissed EMR students that were returned to regular classes and for the dismissed EMR

Table 11

Student State Wide Assessment Scores

Student Pair		Special Education Students			Regular Education Students	
		Communication	Math		Communication	Math
#1	items	40 (60)	32 (60)	items	48 (60)	49 (60)
	skills	4 (11)	4 (13)	skills	8 (11)	10 (13)
#2	items	49 (60)	28 (60)	items	44 (60)	27 (60)
	skills	7 (11)	3 (13)	skills	7 (11)	4 (13)
#3	items	11 (60)	22 (60)	items	41 (60)	43 (60)
	skills	9 (11)	1 (13)	skills	8 (11)	8 (13)

Note: The number in parentheses indicates the highest possible score.

students that remained in regular classes. The regular class students' mean score was 1.1 ratings above the special education class students. According to the Burks' scale, the higher the rating the more significant the problem behavior was seen by the rater. The areas of poor intellectuality and poor academics were also analyzed separately from the total profile. The mean scores are highlighted on Table 12. In the area of poor academics the regular class students' mean was two scale points above the special education students' mean. The mean for both groups in the area of poor intellectuality was in the significant range. The mean for the special education group in the area of poor academics was at the top of the significant range. The mean for the regular education group in the area of poor academics was at the bottom of the very significant range.

Table 12

Mean Ratings on Burks Behavior Rating Scale

	Special Education Students	Regular Education Students	Difference
Total items (rated significant/ very significant)	4.6	5.7	-1.1
Poor Intellectuality	17.3	21.0	-3.7
Poor Academics	17.0	19.0	-2.0

At the time the regular education teachers were asked to rate the Burks' for a student, they were also asked to rank the student in the top, middle, or bottom third of the rest of their classes in the area of academics/ability and behavior. This was done to get a global unstructured rating on each student. Table 13 shows the rating ratio for both groups of students. Only 14 pairs of students are included in this portion of the study. Some teachers left ratings incomplete. In the area of ability/ academics the teachers rated all of the 14 regular education students as in the bottom third of their classes. One of the special education students was rated at the top third of the class and the remaining two students were rated in the middle third.

Table 13

Teacher Ratings on Ability/Academics and Behavior

	Special Education Students			Regular Education Students		
	top 1/3	middle 1/3	bottom 1/3	top 1/3	middle 1/3	bottom 1/3
Ability/ Academics	1	2	11	0	0	14
Behavior	5	3	6	3	1	10

In the rating of behavior, twice as many of the special education students were rated in the top and middle third of the class as were regular education students. In the areas of ability/academics and behavior the special education students were generally rated higher.

Summary

The findings of this study are summarized below.

(1) Of the seven characteristics examined only three showed any indication of discrimination between the dismissed EMR students that were rereferred for psychological testing and those that were not rereferred. It was found that there was a higher percentage of males rereferred. There was also a trend for students that were in elementary school at time of dismissal to be rereferred more frequently than those than were in middle school. It was found that the specific school the students attended at time of dismissal was a factor in discriminating between those students rereferred and those not rereferred.

(2) Of the seven characteristics examined, four showed no indication of discriminating between the dismissed EMR students that were rereferred for psychological testing and those that were not rereferred. These four characteristics were race, the number of years spent in an EMR program before dismissal, placement at a rural or urban school at time of dismissal, and ABS ratings at time of dismissal.

(3) There was no indication that any of the same seven characteristics discriminated between those dismissed EMR students that were rereferred and subsequently placed in a special education program and those that were rereferred and not placed in a special education program. However, the small number of students rereferred and not placed make any conclusions very tentative.

(4) Within the limitations set by this study, the present achievement status of the dismissed EMR students returned to special education was equal to that of the dismissed EMR students that remained in regular education classes.

(5) The present learning and behavioral performance of the dismissed EMR students returned to special education was equal to that of the dismissed EMR students that remained in regular education. The trend was for a slightly lower mean level of ratings in behavior problem areas for the special education students.

(6) Overall, the dismissed EMR students included in this study were found to be performing well below average on the measure of achievement status and on the measure of learning and behavioral performance approximately four years after dismissal.

CHAPTER V

DISCUSSION

The format for this chapter is divided into four major areas. The conclusions section includes discussion regarding each individual question. Comparison is also made between the findings of those studies reported in the review of related literature and those of this study. The summary provides an overview of the results of the study. Recommendations for further study and implications end this chapter.

Conclusions

An analysis of the results of this study indicates that several specific conclusions can be made. It was found that the majority of students dismissed from the EMR program in the spring of 1976 still attended school in Alachua County. Of those dismissed students remaining in Alachua County the majority, or 58 percent, were found to have been rereferred for psychological testing four years after dismissal from the program. If, when a teacher makes a referral on a student, he/she is indicating that the student needs more specialized teaching and curriculum assistance than can be provided in the regular classroom, it can

be concluded that the majority of the dismissed EMR students did not meet with success in the regular class environment. A closer analysis into when the students were rereferred indicated that 71 percent of the students were rereferred in the first two years after dismissal. Twenty-two students were rereferred the first year, 28 the second, 11 the third, and nine the fourth year. This indicates that the dismissed EMR students had difficulty adapting to regular classes from the start. A comparison of the change in placement rate for the EMR students not dismissed reinforces this conclusion. Only 21 percent had been rereferred for possible program changes.

The majority of the dismissed EMR students (46 percent) were placed into a program for specific learning disabled students. This would indicate that a discrepancy between performance and ability was seen as the major learning problem. However, it could also have been a reflection of the philosophy of placing students into the program with the least amount of perceived stigma. Next in rank order, the students were again placed back into an EMR program. This could reflect a disagreement with the County's definition of which EMR students were appropriate for dismissal or that the time spent in regular education classes without support caused a deterioration in ability. Seventeen percent of the students were placed into programs for the emotionally handicapped. This placement indicates that the students' behavior was seen as the primary area of difficulty.

Thirteen percent of the students were rereferred and not placed. A review of the psychological testing results and comments on staffing forms of these students indicated that non-placement was the result of a series of exclusions. The student was not functioning low enough academically for placement into the specific learning disabilities program, had not changed significantly from when dismissed which eliminated a return to the EMR program, and whose classroom behavior was not severe enough for placement into a program for the emotionally handicapped. A total of 87 percent of the students rereferred for psychological reevaluation were recommended for placement in an exceptional student education program. This decision might indicate that teachers referred students they felt would meet criteria for placement or that the criteria for placement was so broad that almost all students referred were placed.

Question One

For question one the characteristics of the dismissed EMR students that were rereferred for psychological testing and possible placement in special education and those that were not rereferred were examined. The characteristics examined were

(1) sex,

(2) race,

(3) grade level placement at time of dismissal,

(4) number of years in an EMR program at time of dismissal,

(5) ABS ratings at time of dismissal,

(6) placement at an urban or rural school at time of dismissal,

(7) the specific school attended at time of dismissal.

Sex was found to be a characteristic that discriminated between those students rereferred and those students not rereferred. Sixty-seven percent of the students rereferred were male. Sixty-four percent of the students not rereferred were female. More females were not rereferred than were referred. More males were rereferred than were not rereferred. Fifty-four percent of the total number of dismissed EMR students remaining in Alachua County were male. Of those, 72 percent of the males dismissed were re-referred. Forty-five percent of the females dismissed were rereferred. Males were three times more likely to be rereferred as females.

Race was not found to be a characteristic that discriminated between those students not rereferred. Approximately equal percentages of whites and non-whites were found in both the rereferred and not rereferred groups. Of the total group 88 percent were non-white and 58 percent of the non-white group was rereferred. Of the total group 12 percent were white and 64 percent of the white group was rereferred. The students' race was not a factor in determining whether or not a student was rereferred.

The grade level the student was in at time of dismissal was a characteristic that discriminated between those students re-referred and those students not rereferred. Of those students dismissed, 42 percent were in the elementary grades and 58 percent

were in the middle school grades. However, 68 percent of the elementary school students were rereferred and 51 percent of the middle school students were rereferred. Since the majority of students were rereferred the first two years, it could be hypothesized that the elementary schools had a lower tolerance for students that deviated from the mean than middle and high schools did. This level of tolerance may be due to the larger variety of regular classes offered to slow learners in the middle and high school levels.

The number of years spent in an EMR program before dismissal was not a characteristic that discriminated between those students rereferred and those students not rereferred. Sixty-five percent of the students rereferred had been in the EMR program one to two years and 64 percent of the students not rereferred had been in the EMR program one to two years. Of the total group examined, 65 percent of the students had been in the EMR program one to two years. This reflects a time period during the years 1974 and 1975 when the EMR program was growing in size in Alachua County.

Placement at an urban or rural school at time of dismissal was not a characteristic that discriminated between those students rereferred and those students not rereferred. Of the total group, 75 percent were from urban schools. Of those students rereferred 71 percent were from urban schools. Of the total of urban students 55 percent were rereferred. Of the total of rural students 66 percent were rereferred. Whether a student attended a rural or urban school, his/her chances of being rereferred were approximately the same.

The specific school attended at the time of dismissal was a characteristic that discriminated between those students re-referred and those students not rereferred. An examination of what school the student attended when he/she was rereferred indicated that 90 percent of the students were still attending the school they attended when they were dismissed from the program. There was a wide range at elementary and middle school levels in the percentage of students rereferred. Although the numbers used in determining these percentages are small, the wide range of differences in percentages indicates a difference between the schools. The referral rate at the elementary school level ranged from 33 percent to 100 percent. The rereferral rate at the middle school level ranged from 25 percent to 100 percent. All schools, elementary and middle, with three or more students dismissed rereferred at least two students. The difference between schools may come from several directions. A school may in general refer a higher percentage of their students. This may reflect a positive attitude toward the ability of special education to help students or a limited tolerance by regular education teachers for students that deviate from the norm. The difference in percentage rate may also reflect school zoning patterns. Some schools may have had a higher percentage of students from disinterested parents of a low socio-economic status.

Question Two

For question two the characteristics of the rereferred students that were subsequently placed in a special education

program and those students that were not placed in a special education program were examined. The characteristics examined were

(1) sex,

(2) race,

(3) grade level placement at time of dismissal,

(4) number of years in an EMR program at time of dismissal,

(5) ABS ratings at time of dismissal,

(6) placement at an urban or rural school at time of dismissal,

(7) the specific school attended at time of dismissal.

Because only a small number of students were rereferred and not placed analysis of data was tentative. As stated earlier, only 13 percent of the students rereferred were not placed in a special education program. That is to say that 87 percent of the time a student was rereferred, placement in a special education Program was the result. An examination of the nominal data gathered for question two indicated no definite differences on any of the seven characteristics examined. Other characteristics might have shown a differentiation between the two groups. Characteristics that might have shown differentiation are the student's discrepancy between the expected and actual level of academic performance, social-emotional behavior exhibited in the classroom, or a significant drop in IQ score over time.

Out of the seven characteristics examined only three showed any indication of discriminating between the dismissed EMR students that were rereferred for psychological testing and possible placement in special education and those that were not rereferred. It was found that there was a higher percentage of males rereferred. There was also a trend for students that were in elementary school at time of dismissal to be rereferred more frequently than those that were in middle school. There was a definite difference in the percentage of dismissed EMR students rereferred among schools at the time of dismissal. There were no differences found when the characteristics of race, number of years spent in an EMR program before dismissal, ABS ratings at time of dismissal, or placement at an urban or rural school at time of dismissal were examined. There was no indication that any of these characteristics discriminated between those dismissed EMR students that were rereferred and subsequently placed in a special education program and those that were rereferred but not placed in a special education program. However, the small number of students rereferred and not placed make any conclusion very tentative.

Question Three

For question three the present achievement status, learning and behavioral performance of the dismissed EMR students presently in special education classes and the dismissed EMR students that were not returned to special education classes was examined. Nineteen pairs of students were matched for IQ scores, present

grade placement, chronological age, and school placement. All schools for this part of the study were urban schools. The program placement profile of the 19 special education students chosen for this part of the study was representative of the total group of dismissed EMR students returned to special education classes. Sixty-eight percent of the students attended classes for the specific learning disabled. The remaining students were almost equally divided into the programs for the educable mentally retarded and emotionally handicapped. One student was receiving help from the itinerant hearing impaired therapist.

Metropolitan Achievement Test (MAT) standard scores and grade equivalents were examined for students in grades eight through ten. The number of students in this portion of the study was 32. In the area of reading there was no discernable difference between the mean of students placed in special education classes and of those students placed in regular education classes. In the area of math there was no discernable difference between the mean of students placed in special education and of those students placed in regular education classes. Although the data in this study concerning MAT scores were analyzed by mean comparisons and no apparent differences were discerned one can observe the data in Appendix C and may come to another conclusion. In nine of the 16 student pairs the special education students' grade level performance was higher than the regular education students' grade level of performance in reading. In seven of the pairs the regular education students' grade level of performance was higher than the special education students' grade

level of performance in reading. Similar results were found for math scores although the same pairs were not entirely involved. These results show a trend that was not significant using mean scores.

Of the total number of students examined in this part of the study 18 were in eighth grade, four were in ninth grade, and 10 were in tenth grade. However, the mean level of performance for both groups in reading was at the middle of third grade. The mean level of performance for both groups in math was at the middle of the fourth grade. This means that, at best, the average level of functioning was four to five years below grade placement. This study only analyzed achievement as measured by the MAT. The impact of a specialized curriculum, such as prevocational or vocational, was not measured.

For grades 11 and 12 the number of skills passed in Communication and Mathematics on the Florida State Student Assessment Test II (SSAT-II) was used as the achievement measure. A meaningful analysis of this data is difficult because only three pairs of students were included in this portion of the study. In two of the pairs the regular education student passed more skills than the special education student. The third pair of students passed approximately the same number of items.

The Burks ratings were analyzed for indications of the students' learning and behavioral performance. Regular education teachers were selected to rate the students on the Burks whether or not the students were attending a special education class. The

selection of a regular education teacher was made to ensure a minimal level of uniformity in teacher training and experience. The regular education teachers chosen to rate the students taught academic courses. Only academic courses were chosen to ensure a minimal level of uniformity in classroom structure and content. The mean number of behavioral characteristics rated as significant and very significant was used to compare the students returned to a special education program to those students that remained in regular education classes. The regular education students were rated as having an average of approximately one more behavior area rated as significant or very significant. This difference is too small to hold significant meaning. As a group the dismissed EMR students were rated as having more behavioral problem areas than Burks suggests is normal.

The areas of poor intellectuality and poor academics were analyzed separately from the total profile. According to Burks (1979) these areas highlight the profile of a slow learner. In the area of poor intellectuality the regular education students had a mean rating 3.7 scale points above the special education students. In the area of poor academics the regular education students had a mean rating two scale points above the special education students. The mean for the special education group in the area of poor academics was at the top of the significant range. The mean for the regular education group in the area of poor academics was at the bottom of the very significant range. Although there are only slight differences in favor of the

special education students the difference is consistant in all three areas. Although the data in this study concerning the Burks behavior ratings were analyzed by mean comparisons and no apparent differences were discerned it is possible to examine the data in Appendix D and come to an additional conclusion. In 11 of the 19 student pairs the special education students had fewer behavior problem areas rated as significant and very significant than the regular education student. In eight of the pairs the regular education student had fewer behavior problem areas rated as significant and very significant than the special education student. In 12 of the 19 student pairs the special education student had a lower scale score than the regular education student in the rating area of poor intellectuality. In seven of the pairs the regular education student had a lower scale score than the special education student. In 10 of the 19 student pairs the special education student had a lower scale score than the regular education student in the rating area of poor academics. In eight of the pairs the regular education student had a lower scale score than the special education student. A review of mean scores on the Burks and an analysis of individual student pair ratings indicate a trend of the special education students toward a lower rating in behavioral problem areas.

An unstructured teacher rating was also gathered in the areas of ability/achievement and behavior. The teachers rated the students in the top, middle, or bottom third of the rest of their students. Only 14 pairs of students had a complete set of

information that could be analyzed. In the area of ability/achievement the special education students had three students rated in the top or middle third. No regular education students were rated in the top or middle third. In the behavior ratings, eight special education students were rated in the top or middle third, four regular education students were rated in the top or middle third. Again, the difference is slight, but consistently in favor of the special education students. Overall, the majority of students in both groups were rated in the bottom third in ability/academics and behavior.

Within the limitations set by this study, the present achievement status of the dismissed EMR students returned to special education is equal to that of the dismissed EMR students that remained in regular education classes. The trend was for a slightly higher level of performance from the special education students. The present mean level of learning and behavioral performance of the dismissed EMR students returned to special education is equal to that of the dismissed EMR students that remained in regular education. The trend was for a slightly lower mean level of ratings in problem areas for the special education students and a slightly higher level of academic performance for nine of the 16 student pairs. This was true on a formal and informal teacher rating. Overall, all of the dismissed EMR students were performing below average on the measure of achievement s-atus and on the measure of learning and behavioral performance.

These results can be viewed from two different perspectives. It could be concluded that special education placement has not shown a significant improvement in the areas of academic and behavior for those dismissed EMR students that were returned to special education. However, the trend was in favor of the special education students. They may or may not have benefited in other areas, such as self-concept and prevocational skills from special education placement. It could be concluded that the regular education placement is relatively adequate in the areas measured for borderline EMR students as is special education placement. But, it was shown that all students whether returned to special education classes or left in regular education classes are still performing on measures of achievement and behavior well below the level exhibited by their normal peers. It could also be proposed that mainstreaming has diluted the beneficial effects of special education placement. Of those special education students used in question three the average time spent in a special education program was two hours a day. If the students had spent more time in a special education program the results might have been different.

A final conclusion might be that since 87 percent of the dismissed EMR students rereferred were placed again in a special education program and there is no significant difference in behavior ratings and academic performance between those placed and not placed, that if all the regular education students were rereferred 87 percent would again be placed in special education. If the philosophy is that special education placement is beneficial to students, the dismissed EMR students not rereferred should be.

The results of this study reflect some of the results Smith (1977) found in her study conducted approximately eight months after the students were dismissed from the EMR program. Smith found that of the 31 dismissed EMR students 37 percent had been rereferred for reevaluation and 20 percent had been reassigned to a special education program. Smith also found that the number of years spent in EMR programs before dismissal was not a characteristic that would indicate whether or not the student was rereferred. She also found that sex was not a discriminating characteristic although this study found that it was.

The data collected in this study are in conflict with the general tennant that in the mainstream the handicapped achieve more academically and socially. This study is not in agreement with the findings of Meyers et al. (1975). Meyers also used the MAT as an achievement measure. Mean MAT scores were compared for mainstreamed students matched with regular education students. Meyers found that the regular education students were doing better academically than the mainstreamed students.

The findings in the study are in agreement with the Alberta Special Education Study Report (Calgary Board of Education, 1978). This study report found that regular class placement may be equal to but is not better than the resource room placement. There is also agreement with the study by Bradfield et al. (1973). Bradfield studied the academic achievement, self-concept, and behavior of EMR students in regular classes and in special classes. He found that at the end of two years there was no difference in growth between the two groups.

Summary

For question one, seven characteristics were examined for the ability to discriminate between the dismissed EMR students that were rereferred for psychological testing and those dismissed EMR students that were not rereferred. The characteristics of sex, grade level, and the specific school attended at time of dismissal were found to discriminate between the two groups of dismissed EMR students. The characteristics of race, number of years placed in an EMR program before dismissal, placement at a rural or urban school at time of dismissal, and ABS ratings did not discriminate between the two groups of dismissed EMR students.

For question two, the same seven characteristics were examined for the ability to discriminate between the dismissed EMR students that were rereferred for psychological testing and subsequently placed in a special education program and those that were rereferred and not placed in a special education program. There was no indication that any of the characteristics discriminated between the two groups, but the small number of students rereferred and not placed make any conclusions very tentative.

The present achievement status, learning, and behavioral performance of the dismissed EMR students presently in special education classes and the dismissed EMR students that were not returned to special education classes was examined in question three. It was found that the present mean achievement status,

as measured by the MAT, of the dismissed EMR students returned to special education was approximately equal to that of the dismissed EMR students that remained in regular education classes. However, an examination of individual student pairs reveals a trend toward a higher level of academic functioning in favor of the special education students. It was found that the present learning and behavioral performance, as measured by the Burks, of the dismissed EMR students returned to special education was approximately equal to that of the dismissed EMR students that remained in regular education. The present learning and behavioral performance, as measured by an informal teacher rating scale, of the dismissed EMR students returned to special education was equal to that of the dismissed EMR students that remained in regular education. However, an examination of individual student pair ratings and mean scores reveals a trend toward a lower rating in behavioral problem areas in favor of the special education students. Overall, the dismissed EMR students included in this part of the study were found to be performing well below average on the measure of achievement status and on the measure of learning and behavioral performance approximately four years after dismissal.

Recommendations for Further Study

Research is seldom conclusive with a single study. This study utilized a specific group of dismissed EMR students attending a specific school system. Inferential statistics were not used. The results of this study will stand only as long as study replication allows.

Although the matching characteristics used are those most commonly used, they still may not be the most appropriate variables. Level of motivation and socio-economic factors are two variables that might have been utilized. In defining the program, the number of hours the mainstreamed EMR students spend in the special education classroom should be controlled and varied over a larger sample.

There was also no control over teacher or curriculum variables. The specific teaching styles, personalities, level and type of teacher training was not controlled. The type, structure, and content of curriculum was not controlled.

Only a very limited part of present achievement and behavior was measured. There is also a need for individual and small group research vs. global, large group research.

Although four years might qualify for longitudinal research, the study would have been improved if the pairs of students were evaluated each year until they were graduated from or left school. There might possibly have been different results if the students used in this type of study had been dismissed at a younger age.

Implications

While the limitations of the study prohibit wide-spread generalization, it appears that the dismissal of borderline EMR students into regular education classes does not greatly effect the student's behavioral or achievement performance. This conclusion should be considered by school districts in the areas of

management and administrative decision making. The study results should effect the implementation of a policy of least restrictive environment. The findings of this study indicate that student performance is not the primary characteristic teachers consider when referring students for psychological testing. School policies should reflect these findings.

The findings of the study should also prove useful to those professionals in the schools involved in staffings and individual educational planning conferences. It is hoped that the results of this study will prove useful in deciding what is the most appropriate placement for each individual mildly retarded student.

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APPENDIX A

SPECIFIC SCHOOL ATTENDED AT TIME OF DISMISSAL

School	Students Rereferred	Students Not Rereferred
Elementary A	0	0
B	0	1
C	6	1
D	0	2
E	6	1
F	1	0
G	2	1
H	0	0
I	0	1
J	1	0
K	3	0
L	3	3
M	2	2
N	2	1
O	3	3
P	5	2

Appendix A - Continued

School		Students Rereferred	Students Not Rereferred
Middle	A	5	6
	B	5	15
	C	4	7
	D	9	4
	E	6	6
	F	4	0

APPENDIX B

NUMBER OF REREFERRED STUDENTS PLACED AND
NOT PLACED BY SPECIFIC SCHOOL

School		Rereferred Students Not Placed	Rereferred Students Placed
Elementary	A	-	-
	B	-	-
	C	1	6
	D	-	-
	E	-	6
	F	-	1
	G	-	2
	H	-	-
	I	-	-
	J	1	1
	K	-	3
	L	-	3
	M	-	2
	N	1	2
	O	3	3
	P	-	5

Appendix B - Continued

School		Rereferred Students Not Placed	Rereferred Students Placed
Middle	A	-	5
	B	-	5
	C	1	4
	D	1	9
	E	-	6
	F	1	4

APPENDIX C

MAT SCORES

Reading Scores

Student Pair	Special Education Students	Regular Education Students	Difference
1	3.2/648	4.3/685	-1.1/- 37
2	4.8/697	3.5/663	1.3/ 34
3	3.3/653	2.0/547	1.3/ 106
4	5.7/715	3.3/655	2.4/ 60
5	4.8/697	2.6/600	2.3/ 97
6	2.7/618	4.9/700	-2.2/- 82
7	3.1/642	4.0/679	- .9/- 37
8	2.9/551	4.5/600	-1.6/- 49
9	2.3/590	2.0/554	.3/ 36
10	2.7/337	1.6/486	1.1/ 51
12	2.4/596	1.5/381	.9/ 215
13	2.4/596	3.9/675	-1.5/- 79
14	3.3/655	4.5/692	-1.2/- 37
15	2.8/542	5.1/702	-2.3/-160
16	3.3/653	2.0/547	1.3/ 106
19	4.1/680	3.3/653	.8/ 27

Appendix C - Continued

Math Scores

Student Pair	Special Education Students	Regular Education Students	Difference
1	3.7/561	5.9/667	-2.2/-106
2	3.6/573	3.5/550	.1/ 23
3	5.1/632	4.6/605	.5/ 27
4	5.3/639	3.5/550	1.8/ 89
5	5.3/639	3.9/571	1.4/ 68
6	3.5/500	4.3/591	- .8/- 41
7	2.6/486	4.5/600	-1.9/-114
8	2.5/600	5.5/643	-3.0/- 43
9	3.9/571	3.7/561	.2/ 10
10	3.2/648	4.6/605	-1.4/ 43
12	4.3/590	1.5/381	2.8/ 209
13	5.6/655	3.5/550	2.1/ 105
14	2.6/483	6.8/704	-4.2/-221
15	4.4/595	4.6/605	.2/- 10
16	5.6/653	6.3/682	- .7/- 29
19	6.5/690	4.5/600	2.0/ 90

APPENDIX D

BURKS RATINGS

Significant/# Very Significant

Student Pair	Special Education Students	Regular Education Students
1	5/2	3/0
2	3/1	1/0
3	4/3	7/4
4	4/2	10/4
5	2/1	4/2
6	6/1	6/5
7	6/2	3/1
8	10/2	2/3
9	4/2	7/3
10	5/4	5/1
11	3/2	0/0
12	0/0	7/3
13	3/1	4/2
14	1/1	1/0
15	6/0	4/1
16	0/0	1/0

Appendix D - Continued

Student Pair	Special Education Students	Regular Education Students
17	0/0	4/7
18	1/0	10/0
19	0/0	2/1

Appendix D - Continued

Poor Intellectuality/Poor Academics

Student Pair	Special Education Students Scale Score	Regular Education Students Scale Score
1	18/24	14/11
2	17/16	13/13
3	27/25	15/20
4	13/11	30/24
5	19/21	25/22
6	12/21	31/25
7	18/20	19/19
8	22/13	26/25
9	23/25	33/25
10	35/25	18/19
11	18/17	9/ 8
12	12/10	28/25
13	20/18	21/19
14	23/22	13/13
15	18/16	23/25
16	7/ 9	16/18
17	7/ 5	29/24
18	14/15	16/14
19	7/ 6	19/19

APPENDIX E

INFORMAL TEACHER RATINGS

Ability and Academics/Behavior

Student Pair	Special Education Students	Regular Education Students
1	b/b	b/t
3	b/b	b/b
4	b/t	b/b
5	b/t	b/b
6	b/m	b/b
7	m/b	b/t
9	b/m	b/b
10	b/b	b/b
12	b/b	b/b
14	b/t	b/t
16	b/b	b/b
17	b/t	b/b
18	m/m	b/m
19	t/t	b/b

Note: t = top 1/3; m = middle 1/3; b = bottom 1/3

APPENDIX F

STUDENT DATA FORM

Name _____ Grade _____ Age _____

Birthdate _____ Sex: Male ____ School: Urban ____
Female ____ Rural ____

Race: White ____ School: At dismissal _____
Non-White ____ Now _____

Date 1st placed in EMR _____ Years before dismissal _____

Rereferred: Yes ____ Date _____
No ____

Program Placed In _____

IQ: Name of Test _____ Date _____

Full Scale _____

Adaptive Behavior Ratings:

0-24% _____
25-49% _____
50-74% _____
75-99% _____

APPENDIX G

STUDENT PAIR DATA

Special Education Student/Regular Education Student

Student Pair #	Grade Level	Birth Year	IQ	School
1	8/8	1965/1965	64/64	D/D
2	10/10	1963/1963	68/69	B/B
3	8/8	1965/1965	68/67	E/E
4	8/8	1965/1965	69/64	E/E
5	8/8	1965/1965	69/65	F/F
6	8/8	1967/1967	67/68	F/F
7	8/8	1967/1967	69/73	F/F
8	8/8	1965/1965	67/70	F/F
9	8/8	1964/1964	65/69	F/F
10	10/10	1963/1963	68/68	A/A
11	11/11	1963/1963	71/72	A/A
12	10/10	1963/1963	60/64	A/A

Appendix G - Continued

Student Pair #	Grade Level	Birth Year	IQ	School
13	9/9	1964/1964	66/70	A/A
14	8/8	1966/1966	75/72	D/D
15	10/10	1962/1962	71/72	B/B
16	10/10	1964/1964	68/72	C/C
17	12/12	1962/1962	75/72	C/C
18	11/11	1963/1963	73/70	C/C
19	9/9	1963/1963	68/65	C/C

BIOGRAPHICAL SKETCH

Barbara G. Mascari was born November 13, 1949, in Jacksonville, Florida. Following graduation from Ocala High School, Ocala, Florida, Mrs. Mascari enrolled at the University of Mississippi. In January of 1971 she received the degree of Bachelor of Arts with a major in psychology. Mrs. Mascari remained at the University of Mississippi and received the degree of Master of Education in Special Education in 1972.

In 1976, Mrs. Mascari moved from south Florida to pursue graduate study in special education administration. In August 1977, she received her Specialist in Education degree from the University of Florida. Mrs. Mascari is presently the Exceptional Student Education Staffing and Placement Specialist with the School Board of Alachua County, Florida. Mrs. Mascari is married and has a son.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adeqaute, in scope and quality, as a dissertation for the degree of Doctor of Education.

Charles Forgnone

Charles Forgnone, Chairman
Professor of Special Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

Robert F. Algozzine

Robert F. Algozzine
Associate Professor of Special Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

Ralph B. Kimbrough

Ralph B. Kimbrough
Professor of Educational Administration and Supervision

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

Cecil D. Mercer

Cecil D. Mercer
Professor of Special Education

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Education.

William R. Reid
Professor of Special Education

This dissertation was submitted to the Graduate Faculty of the Department of Special Education in the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Education.

August, 1980

Dean, Graduate School